Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application. Claim 5 has been amended as follows:

1.   (Currently Amended) In an intelligent agent system, a computer implemented or user assisted method of decision making in at least one ~~aerial~~ combat situation, comprising the steps of:

configuring, using a computer, at least one tactical agent that includes data corresponding to first information describing immediate ~~certainties~~ combat situations required to be processed to determine a first combat action to be performed, near ~~certainties~~ combat situations required to be processed to determine a second combat action after said first combat action, and longer-term combat situations required to be processed to determine a third combat action after said first and second combat actions, said immediate combat situations, near combat situations and longer-term combat situations characterizing the at least one aerial combat situation;

processing, using the computer, the at least one aerial combat situation using the at least one tactical agent responsive to at least one of said first combat action, said second combat action and said third combat action; and

implementing the decision making, by at least one user or independently by at least one intelligent agent, responsive to said processing step, and the decision making used to initiate at least one action with respect to the at least one combat situation.

2.   (Original) A computer implemented or user assisted method of decision making according to claim 1, wherein the at least one intelligent agent exhibits autonomous behavior and engages in a human-simulated or human-like decision making process.

2

3.   (Currently Amended) A computer implemented or user assisted method of decision

making according to claim 1, wherein the at least one intelligent agent assists the at least one

user in the decision making for the at least one ~~aerial~~ combat situation by providing the at least

one user advice on coordinating the at least one aerial combat situation.

4.   (Currently Amended) A computer implemented or user assisted method of decision

making according to claim 1, wherein the at least one intelligent agent is configurable to perform

independent decisions in at least one of real-time and non-real time for the at least one ~~aerial~~

combat situation.

5.   (Previously Presented) A computer implemented or user assisted method of

decision making according to claim 1, wherein the at least one intelligent agent comprises a

plurality of collaborating intelligent agents for the decision making, and wherein the plurality of

collaborating intelligent agents exhibit autonomous behavior and engage in at least one of a

human-simulated and human-like decision making process.

6.   (Original) A computer implemented or user assisted method of decision making

according to claim 5, wherein at least one of the plurality of collaborating intelligent agents

includes or accesses a portion of the data not shared by another of the plurality of intelligent

agents.

7.   (Original) A computer implemented or user assisted method of decision making

according to claim 5, wherein the decision making is implemented or the user assisted by

3

implementing global decisions that affect the plurality of the collaborating intelligent agents and the at least one user on the basis of the plurality of collaborating agents exchanging, debating and discussing the data.

8.   (Original) A computer implemented or user assisted method of decision making according to claim 1,

wherein the at least one intelligent agent comprises a plurality of collaborating intelligent agents for the decision making, and

wherein the plurality of collaborating agents collaborate and optionally debate with each other and with the at least one user.

9.   (Original) A computer implemented or user assisted method of decision making according to claim 1,

wherein the at least one intelligent agent comprises a plurality of collaborating intelligent agents for the decision making, and

wherein the plurality of collaborating intelligent agents include at least one of role-playing agents and adviser agents.

10.   (Original) A computer implemented or user assisted method of decision making according to claim 1,

wherein the at least one intelligent agent comprises a plurality of collaborating intelligent agents, wherein the at least one user comprises a plurality of users, and

4

wherein the plurality of collaborating intelligent agents collaborate with the plurality of users to jointly perform the decision making.

11.   (Original) A computer implemented or user assisted method of decision making according to claim 1,

wherein the at least one user comprises a plurality of independent or collaborating users, and

wherein the at least one intelligent agent collaborates with the plurality of independent or collaborating users to jointly perform the decision making.

12.   (Currently Amended) A computer implemented or user assisted method of decision making according to claim 1, wherein the at least one intelligent agent assists the at least one user in the decision making for the at least one ~~aerial~~ combat situation by providing the at least one user advice on coordinating the at least one ~~aerial~~ combat situation using a closed loop feedback process between the at least one intelligent agent and the at least one user.

13.   (Original) A computer implemented or user assisted method of decision making according to claim 12, wherein the at least one intelligent agent accepts real-time corrections to the environment as perceived by the at least one intelligent agent from the at least one user in at least one of a non-real time and real-time period.

14.   (Currently Amended) A computer implemented or user assisted method of decision making according to claim 1, wherein the at least one intelligent agent assists the at least one

5

user in the decision making for at least one of the at least one aerial combat situation, sea

situation, undersea situation, space situation, land situation, railroad situation, automotive

situation, underground situation, space situation, land situation, and traffic situation, and any

combinations thereof.

15.   (Original) A computer implemented or user assisted method of decision making

according to claim 1,

wherein the at least one user comprises a plurality of independent or collaborating users,

and

wherein the at least one intelligent agent collaborates with the plurality of independent or

collaborating users with different sets of environmental information representing each of the

users different perceptions of the environment to perform the decision making.

16.   (Original) A computer implemented or user assisted method of decision making

according to claim 15, wherein the at least one intelligent agent utilizes the different sets of

environmental information to at least one of enhance and correct the at least one intelligent

agent's view of the environment.

17.   (Original) A computer implemented or user assisted method of decision making

according to claim 16, wherein at least one of corrected and enhanced information resulting from

the different sets of environmental information is propagated to the plurality of independent or

collaborating users for at least one of review, adjusting and updating of the environmental

information.

6

Appl. No.: 10/067,255
Reply to Office Action of December 13, 2004

Docket No. 110344.101 US2

18.   (Original) A computer implemented or user assisted method of decision making according to claim 1,

wherein the at least one user comprises a plurality of independent or collaborating users, and

wherein the at least one intelligent agent comprises a plurality of collaborating intelligent agents representing the plurality of independent or collaborating users having different environmental perceptions.

19.   (Original) A computer implemented or user assisted method of decision making according to claim 1, wherein the at least one intelligent agent learns over time by accumulating knowledge about at least one of user behavior, habits and psychological profiles of the at least one user.

20.   (Original) A computer implemented or user assisted method of decision making according to claim 19, wherein the at least one intelligent agent includes a priority scheme, and wherein a repeated rejection by the at least one user of a particular type of agent recommendation by the at least one intelligent agent causes the at least one intelligent agent to review its priority scheme and optionally reprioritize the priority scheme.

21.   (Original) A computer implemented or user assisted method of decision making according to claim 20, wherein as a result of the at least one intelligent agent reviewing its priority, the at least one intelligent agent does not recommend a specific action or in-action.

7

22.   (Original) A computer implemented or user assisted method of decision making according to claim 1, wherein the at least one intelligent agent collects and evaluates at least one user performance indicator including mental state, physical condition, fatigue, and stress of the at least one user, responsive to the environment and complexity associated therewith.

23.   (Original) A computer implemented or user assisted method of decision making according to claim 22, wherein the at least one intelligent agent limits at least one of user privileges, user independent behavior and user authorization without authorization being provided by another user, when the at least one user performance indicator negatively reflects user performance.

24.   (Original) A computer implemented or user assisted method of decision making according to claim 22, wherein the at least one intelligent agent provides a recommended course of action responsive to the at least one user performance indicator.

25.   (Original) A computer implemented or user assisted method of decision making according to claim 22,

wherein the at least one intelligent agent comprises a plurality of collaborating intelligent agents, wherein the at least one user comprises a plurality of users, and

wherein a first recommended course of action is provided for the at least one user responsive to the at least one user performance indicator, and a second recommended course of action is provided for the plurality of users, optionally including the at least one user, responsive to at least one of collaboration between the plurality of agent, users, and a combination thereof.

8

26.   (Original) A computer implemented or user assisted method of decision making

according to claim 1,

        wherein the at least one intelligent agent comprises a plurality of collaborating

intelligent agents,

        wherein the at least one user comprises a plurality of users,

        wherein user specific information is collected and evaluated for each of the plurality

of users and group specific information is collected and evaluated for the plurality of users as a

group, and

        wherein a plurality of first recommended courses of action are provided for one or more

of the plurality of users responsive to the user specific information, and a plurality of second

recommended courses of action are provided for the plurality of users, optionally including the at

least one user, responsive to the group specific information.

27.   (Currently Amended) A computer implemented or user assisted method of decision

making according to claim 1,

        wherein said processing step further comprises the step of processing and visually

building, using the computer, the at least one aerial ~~combat~~ situation using the at least one

tactical agent on a user display, and

        wherein said visual building step further comprises the step of generating an object and

imbedding the object in real-time in at least one of a working and running object environment,

thereby processing the at least one ~~aerial~~ combat situation.

9

28.   (Currently Amended) A computer implemented or user assisted method of decision

making according to claim 1,

wherein said method further comprises the step of collecting environment information in

real-time from at least one sensing device,

wherein said processing step further comprises the steps of processing, using the

computer, the at least one ~~aerial~~ combat situation using the at least one tactical agent on a user

display, and automatically generating an object representative thereof as an object model

indicative of the environment.

29.   (Currently Amended) A computer implemented or user assisted method of decision

making according to claim 1,

wherein the data further comprises a plurality of resources,

wherein the at least one tactical agent comprises a plurality of tactical agents monitoring

at least one the plurality of resources, each of the plurality of tactical agents capable of

perceiving the at least one of the plurality of resources differently,

wherein said processing step further comprises the steps of processing, using the

computer, the at least one ~~aerial~~ combat situation using the plurality of tactical agents associated

with the plurality of resources.

30.   (Original) A computer implemented or user assisted method of decision making

according to claim 1,

wherein the data further comprises information about a plurality of resources,

10

wherein said method further comprises the step of collecting environment information in

real-time, and wherein at least one of:

at least one of the plurality of resources are known to the at least one tactical agent, and

the at least one tactical agent recognizes objects in real-time from the environment

information based on observable characteristics and behavior associated therewith.

31.   (Original) A computer implemented or user assisted method of decision making

according to claim 1,

wherein the at least one user comprises a plurality of users including a plurality of

weapons directors and at least one senior director,

wherein said method further comprises the sequential or non-sequential steps of:

displaying to at least one of the plurality of weapons directors and tile at least one senior

director event information about events occurring in said method and actions associated

therewith;

enabling the at least one of the plurality of weapons directors and the at least one senior

director to issue orders to at least one resource managed by the at least one weapons director;

displaying recommendations generated by the at least one intelligent agent to the

weapons director;

enabling the plurality of users to control speed of said method during a simulation

including restarting the simulation, checking a state of the simulation, and terminating-the

simulation;

enabling the at least one user to activate or deactivate the at least one tactical agent

associated with the at least one user;

11

enabling each of the plurality of users to log into the simulation or log out of the

simulation; and

enabling the plurality of weapons directors to communicate with each other for resource

transfer therebetween.

32.   (Original) A computer implemented or user assisted method of decision making

according to claim 1,

wherein the at least one user comprises a plurality of users including a plurality of

weapons directors and at least one senior director,

wherein said method further comprises the sequential or non-sequential steps of issuing

an order by at least one of the weapons directors to request the at least one senior director to

authorize transfer of resources between weapons directors.

33.   (Original) A computer implemented or user assisted method of decision making

according to claim 1,

wherein the at least one user comprises a plurality of users including a plurality of

weapons directors and at least one senior director,

wherein each of the plurality of weapons directors includes:

at least one level having a value indicative of one of the following: unknown, novice,

journeyman, expert, and master,

an allegiance indicating whether each of the plurality of weapons directors is one of the

following: ours, enemy, and unknown,

12

a senior reference indicating the at least one senior director which each of the plurality of

weapons directors reports thereto,

a list of enemy resources each of the plurality of weapons directors are responsible for

managing, and

a human indicator indicating whether each of the plurality of weapons directors

represents one of the at least one user and the at least one intelligent agent.

34.   (Original) A computer implemented or user assisted method of decision making

according to claim 1,

wherein the data further comprises a plurality of resources,

wherein each of the plurality of resources includes indicators to indicate resource status,

including:

a mustBeHandled indicator indicative of at least one of the plurality of resources that

must be handled, without determining a time of handling the resource,

a critical indicator indicative of at least one of the plurality of resources that must be

handled immediately, and potentially jeopardizing predetermined goals,

a beingHandled indicator indicative of at least one of the plurality of resources currently

being handled.

a committed indicator indicative of at least one of the plurality of resources committed to

handling,

a pending indicator indicative of at least one of the plurality of resources which is

pending commitment, and

13

a recall indicator indicative of at least one of the plurality of resources no longer needing

to be handled.

35.   (Original) A computer implemented or user assisted method of decision making

according to claim 1,

wherein said method is implemented in an object-oriented computing enviroment,

wherein the at least one intelligent agent is implemented by at least one intelligent agent

object, the at least one tactical agent is implemented by at least one tactical agent object,

wherein the data further comprises a plurality of resources, each of the plurality of

resources is implemented by at least one resource object and comprising at least one moving

resource object including moving resources, at least one group object comprising at least one

group of the moving resources.

36.   (Original) A computer implemented or user assisted method of decision making

according to claim 35, wherein the data further comprises at least one plane object including

properties common to a plurality of planes.

37.   (Previously Presented) A computer implemented or user assisted method of

decision making according to claim 36, wherein the at least one moving resource object

comprises moving resource indicators including: destroyed if the at least one moving resource is

destroyed, at base if the at least one moving resource has landed at a base, and getting fuel if this

moving resource is in process of being refueled.

14

38.   (Previously Amended) A computer implemented or user assisted method of

decision making according to claim 35,

wherein the at least one user comprises a plurality of users including a plurality of

weapons directors and at least one senior director,

wherein the plurality of weapons director are implemented by a weapons director object,

and the at least one senior director to whom at least one of the plurality of weapons directors

report is implemented by at least one senior director object include a list of at least one of the

plurality of weapons directors reporting thereto.

39.   (Original) A computer implemented or user assisted method of decision making

according to claim 38,

wherein the at least one of the plurality of tactical agents pass recommendations to at

least one of the plurality of weapons directors and the at least one user, the recommendations

being implemented by a recommendation object.

40.   (Original) A computer implemented or user assisted method of decision making

according to claim 1,

wherein the data further comprises a plurality of resources,

wherein the at least one user comprises a plurality of users including a plurality of

weapons directors and at least one senior director, and

wherein the at least one senior director approves and coordinates transfer of at least one

of the plurality of resources from one of the plurality of weapons directors to another of the

plurality of weapons directors.

15

41. (Original) A computer implemented or user assisted method of decision making

according to claim 1,

wherein the plurality of resources includes a plurality of enemy resources and a plurality

of available resources, wherein said method further comprises the steps of:

determining, for each of the plurality of weapons directors, by the at least one tactical

agent, at least one of the plurality of enemy resources that must be handled, and for the at least

one enemy resource determining strength, speed, and time available for handling;

building, by the at least one tactical agent, a first list of at least one of the available

resources to handle the at least one enemy resource, and for the at least one available resource

determining strength, speed, pilot fatigue factor, and remaining flight time;

building, by the at least one tactical agent, for each of the plurality of enemy resources

requiring handling, a second list of candidates of the plurality of resources capable of being

dispatched to handle the at least one of the plurality of enemy resources;

processing, by the at least one tactical agent, the first list of at least one of the available

resources and determining at least one available resource to handle the at least one enemy

resource, and performing a resource commitment to commit at least one of the plurality of

available resources for each of the plurality of weapons directors; and

assigning, by the at least one tactical agent, when no available resource is capable of

handling the at least one enemy resource the corresponding enemy resource to a third list of

resources to be handled by a team, and processing for the at least one each enemy resource

associated therewith without regard to responsibilities and resources associated with specific

weapons directors, and performing a team resource commitment to commit at least one team of

16

available resources including transfer of resources between the plurality of weapons directors

after authorization by the at least one senior weapons director.

42.   (Original) A computer implemented or user assisted method of decision making

according to claim 1, wherein the data further comprises a plurality of resources,

wherein the at least one user comprises a plurality of users including a plurality of

weapons directors and at least one senior director,

wherein the at least one tactical agent accumulates historical recommendation

information for at least one of the plurality of weapons directors including recommendation type,

number of accepted recommendations, current resource order of accepted recommendations,

accepted resource locations, number of not accepted recommendations, current resource orders

of not accepted recommendations, and not accepted resource locations for not accepted

recommendations.

43.   (Currently Amended) In an intelligent object oriented agent system, a computer

implemented or user assisted method of decision making in at least one situation, comprising the

steps of:

configuring, using a computer, at least one tactical agent implemented by at least one

tactical agent object that includes a plurality of resources corresponding to immediate ~~certainties~~

situations required to be processed to determine a first action to be performed , near ~~certainties~~

situations required to be processed to determine a second action after said first action, and

longer-term situations required to be processed to determine a third action after said first and

second actions, said immediate situations, near situations and longer-term situations,

17

~~possibilities characterizing the at least one situation~~, each of the plurality of resources being

implemented by at least one resource object and comprising at least one moving resource object

including moving resources, at least one group object comprising at least one group of the

moving resources;

processing, using the computer, the at least one situation using the at least one tactical

agent <u>responsive to at least one of said first action, said second action and said third action;</u> and

implementing the decision making, by at least one user or independently by at least one

intelligent agent implemented by at least one intelligent agent object, responsive to said

processing step, and the decision making used to initiate at least one action with respect to the at

least one aerial combat situation.

44. (Currently Amended) An intelligent agent computer system, comprising:

means for configuring at least one tactical agent that includes data corresponding to

~~immediate certainties, near certainties, and longer-term possibilities characterizing at least one~~

~~aerial combat situation~~ <u>immediate situations required to be processed to determine a first combat</u>

<u>action to be performed , near situations required to be processed to determine a second combat</u>

<u>action after said first action , and longer-term situations required to be processed to determine a</u>

<u>third action after said first and second actions, said immediate situations, near situations and</u>

<u>longer-term situations;</u>

means for processing the at least one aerial combat situation using the at least one tactical

agent <u>responsive to at least one of said first combat action, said second combat action and said</u>

<u>third combat action;</u> and

18

means for implementing the decision making, by at least one user or independently by at

least one intelligent agent, responsive to said processing means, and the decision making used to

initiate at least one action with respect to the at least one aerial combat situation.

45.   (Currently Amended) A computer readable tangible medium storing instructions for

implementing a user assisted method of decision making in at least one aerial combat situation,

the instructions executable by a computer, said instructions including the functions of:

configuring, using the computer, at least one tactical agent that includes data,

corresponding to ~~immediate certainties, near certainties, and longer-term possibilities~~

~~characterizing the at least one aerial combat situation~~ immediate situations required to be

processed to determine a first combat action to be performed , near situations required to be

processed to determine a second combat action after said first action , and longer-term situations

required to be processed to determine a third action after said first and second actions, said

immediate situations, near situations and longer-term situations;

processing, using the computer, the at least one aerial combat situation using the at least

one tactical agent responsive to at least one of said first combat action, said second combat

action and said third combat action; and

implementing the decision making, by at least one user or independently by at least one

intelligent agent, responsive to said processing step, and the decision making used to initiate at

least one action with respect to the at least one aerial combat situation.

19

46.   (Currently Amended) A computer readable tangible medium storing instructions for

implementing a user assisted method of decision making in at least one combat situation, the

instructions executable by a computer, said instructions including the functions of:

configuring, using the computer, at least one tactical agent that includes data,

corresponding to ~~immediate certainties, near certainties, and longer-term possibilities~~

~~characterizing the at-least-one aerial-combat-situation~~ immediate situations required to be

processed to determine a first combat action to be performed , near situations required to be

processed to determine a second combat action after said first action , and longer-term situations

required to be processed to determine a third action after said first and second actions, said

immediate situations, near situations and longer-term situations;

processing, using the computer, the at least one aerial combat situation using the at least

one tactical agent responsive to at least one of said first combat action, said second combat

action and said third combat action; and

implementing the decision making, by at least one user or independently by at least one

intelligent agent, responsive to said processing step, and the decision making used to initiate at

least one action with respect to the at least one combat situation.

20